

Work Order ID 159019

Wednesday, April 05, 2017 10:56:25 AM

159019

S/O 130782

Page 1

Item ID: 647.3704 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: 204,205,212,214 Cable Cutter System, High
 Start Date: 4/12/2017 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/26/2017 Req'd Qty: 1.00 ***1*** Customer:
 Reference: SCHEDULED

Approvals: Process Plan: **DAS 21** Date: **APR 05 2017** Tooling: Date: Run Start ***NR1***
 QC: **9-89** Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
647.3700	NC3								

100 **DAS 6** 0.00 **APR 18 2017**
100 DOCUMENT CONTROL
 DC Memo 0.00
 Doc.Control -USB or Paperwork Photocopy bluefile & type labels per PPP 647.3704

110 **DAS 6** 0.00
110 Pick Kit
 Packaging Memo 0.00
 Packaging

120 **DAS 6** 0.00
120 QC4- 100% Inspect kits for completeness
 QC Memo 0.03
 Quality Control

DAS 27
9-89

JUN 27 2017

MAY 17 2017

DAS 28
9-89

DAS 27
9-89

JUN 27 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 159019

Wednesday, April 05, 2017 10:56:25 AM

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Page 2

Item ID: 647.3704 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: 204,205,212,214 Cable Cutter System, High
Start Date: 4/12/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 4/26/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference: SCHEDULED

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 647.3704 Location: _____								
	<i>fs 102</i>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.10							
Quality Control									

DAS 27 9-89
JUN 27 2017
DAS 21 9-89
JUN 27 2017

[Signature]
JUN 27 2017

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

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Page 1

Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP REV:A 12.10.26 NEW ISSUE DD VERF:JLM
REV:B 15.01.26 as per ecr 14-214 DD VERF:JLM
PER REV NC3 15.03.18 JLM VERIFIED BY:DD

IPP
IPP REV:C AS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
601.3082 *601.3082* RIVET CR3212-71 9-89		Purchased	No			110	Each	0.0000	6 **	6 137164		MAY 17 2017	DAS 6 28 9-89
647.3903 *647.3903* Deflector Assembly 9-89		Manufactured	No			110	Each	0.0000	1 **	1 159434		MAY 17 2017	DAS 6 28 9-89
647.3802 *647.3802* 212 Upper Cutter Assembly 9-89		Manufactured	No			110	Each	10.0000	1 **	1			DAS 6 28 9-89
DAS 27 9-89 <u>Location</u> cck030 124717 <u>Loc Qty</u> 10 10 <u>Loc Code</u> 													
647.3804 *647.3804* Lower Cutter Assembly High 9-89		Manufactured	No			110	Each	0.0000	1 **	1 157346		MAY 17 2017	DAS 6 28 9-89
647.4410 *647.4410* Rail 9-89		Manufactured	No			110	Each	17.0000	1 **	1		MAY 17 2017	DAS 6 28 9-89
DAS 27 9-89 <u>Location</u> CCK081 155358 <u>Loc Qty</u> 17 17 <u>Loc Code</u> 													

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

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Page 2

Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

647.4010 Manufactured No

110 Each 3.0000 1 1

647 4010

Wiper Deflector RH

DAS
27
9-89

Location Loc Qty Loc Code

cck060 3
120740 3

**

MAY 17 2017

DAS
6
9-89
DAS
28
9-89

647.4011 Manufactured No

110 Each 11.0000 1 1

647 4011

Wiper Deflector LH

DAS
27
9-89

Location Loc Qty Loc Code

cck060 1
120741 1
ST051 10
155433 10

**

MAY 17 2017

DAS
6
9-89
DAS
28
9-89

647.4110 Manufactured No

110 Each 5.0000 1 1

647 4110

Doubler

DAS
27
9-89

Location Loc Qty Loc Code

CCK080 5
154910 5

**

MAY 17 2017

DAS
6
9-89
DAS
28
9-89

647.4111 Manufactured No

110 Each 0.0000 1 1

647 4111

Doubler

DAS
27
9-89

Location Loc Qty Loc Code

CCK112 7
154921 7

**

154906

9-89 DAS

DAS
28
9-89
MAY 20 2017

647.4112 Manufactured No

110 Each 7.0000 1 1

647 4112

Clip

DAS
27
9-89

**

MAY 17 2017

DAS
6
9-89
DAS
28
9-89

Wednesday, April 05, 2017 10:56:24 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

647.4211 Manufactured No

110 Each 6.0000

1 1

647 4211

Bracket RH

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK112

6

155386

6

647.4212 Manufactured No

110 Each 12.0000

1 1

647 4212

Plate

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK112

12

150884

10

m129702

2

647.4311 Manufactured No

110 Each 5.0000

1 1

647 4311

RH Lower Strut

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK073

5

154294

5

647.4310 Manufactured No

110 Each 1.0000

1 1

647 4310

LH Lower Strut

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK072

1

126395

1

**

MAY 17 2017

DAS
6
9-89

DAS
28
9-89

**

MAY 17 2017

DAS
6
9-89

DAS
28
9-89

**

MAY 17 2017

DAS
6
9-89

DAS
28
9-89

**

MAY 17 2017

DAS
6
9-89

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

647.4312 Manufactured No

110 Each 7.0000 1 1

647 4312

LH Upper Strut

**

MAY 17 2017

DAS 6 28
9-89 0-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK074

7

154503

7

647.4313 Manufactured No

110 Each 7.0000 1 1

647 4313

RH Upper Strut

**

MAY 17 2017

DAS 6 28
9-89 0-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK075

7

154502

7

NAS1149FN832P Purchased No

110 Each 1,526.000 34 34

NAS1149FN832P

Washer

**

MAY 17 2017

DAS 6 28
9-89 0-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

323

M135058

232

M136182

91

ST263

1203

M136866

1203

NAS1149F0332P Purchased No

110 Each 2,528.000 157 157

NAS1149F0332P

Washer

**

MAY 17 2017

DAS 6 28
9-89 0-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

335

m133709

335

ST262

2193

m136835

393

m137075

1800

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DQA: _____ Date: _____



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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-07

Purchased

No

110

Each

31.0000

12

12

DAS

6

9-89

MAY 17 2017

DAS

28

9-89

MS27039-1-07

Screw

DAS

27

9-89

Location

Loc Qty

Loc Code

GA

2

125654

2

ST281

29

m135948

29

MS27039-1-10

Purchased

No

110

Each

309.0000

42

42

DAS

6

9-89

MAY 17 2017

DAS

28

9-89

MS27039-1-10

SCREW

DAS

27

9-89

Location

Loc Qty

Loc Code

GA

15

m129541

15

ST280

294

m137164

294

MS27039-08-08

Purchased

No

110

Each

183.0000

16

16

DAS

6

9-89

MAY 17 2017

DAS

28

9-89

MS27039-08-08

Screw

DAS

27

9-89

Location

Loc Qty

Loc Code

ST278

183

m130325

183

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Page 7

Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-09

Purchased

No

110

Each

83.0000

14

14

MS27039-1-09

Screw

**

MAY 17 2017

DAS

DAS
28

9-89

6

9-89

Location

Loc Qty

Loc Code

FP001

32

18057

32

GA

50

124859

50

ST280

1

m135056

1

MS27039-08-11

Purchased

No

110

Each

203.0000

2

2

MS27039-08-11

SCREW

**

MAY 17 2017

DAS

DAS
28

9-89

6

9-89

Location

Loc Qty

Loc Code

ST278

203

m135864

203

MS24694-S49

Purchased

No

110

Each

166.0000

1

1

MS24694-S49

Screw

**

MAY 17 2017

DAS

DAS
28

9-89

6

9-89

Location

Loc Qty

Loc Code

over006

100

m129499

100

ST284

66

m129702

66

MS24694-C53

Purchased

No

110

Each

54.0000

8

8

MS24694-C53

Screw

**

MAY 17 2017

DAS

DAS
28

9-89

6

9-89

Location

Loc Qty

Loc Code

ST285

54

m136444

54

DAS

27

9-89

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Shop Packet Print

Page 7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Page 8

Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

601.3073 Purchased No 110 Each 0.0000
601 3073 *will ship at later date 4-17-20*

Connector p/n 082-4440
 AN3-4A
AN3-4A
 Bolt

Purchased No 110 Each 222.0000

1 1
****** *MAY 17 2017* *163189* **DAS 6 28**
9-89
****** *MAY 17 2017* **DAS 6 28**
9-89

DAS 27
 AN3-11A
AN3-11A
 Bolt

Purchased No 110 Each 402.0000

Location Loc Qty Loc Code
 ST350 222
 m136579 222

3 8
****** *MAY 17 2017* **DAS 6 28**
9-89

DAS 27
 AN3C10A
AN3C10A
 Bolt

Purchased No 110 Each 8.0000

Location Loc Qty Loc Code
 over003 250
 153855 150
 m136192 100
 ST349 152
 153855 152

2 2
****** *MAY 17 2017* **DAS 6 28**
9-89

Location Loc Qty Loc Code
 ST349 8
 m136983 8

DAS 27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY																																																											
☐ Environment	☐ Design	☐ Doc/Data	☐ Equip/Tooling	☐ Handling/Pre	☐ Material	☐ Internal Transport	☐ Tribal Knowledge	☐ LOA	☐ Substation	☐ Past Expiry Date	☐ Misidentified	☐ No Re-verification	☐ Operator	☐ Offset/Setup	☐ Supplier	☐ Training	☐ Use for Testing	☐ Poor Information	☐ Rushing	☐ Product Improvement	☐ Process Improvement	☐ Manufacturing Process	☐ Past Due	☐ Pressure/Forced	☐ Bending	☐ Centre Not Concentric	☐ Cracks	☐ Crimp/Kink/Ripple/Wave	☐ Cuffs	☐ Crushing	☐ Heat Treat	☐ Wave/Twist in Tube	☐ Marks/Chatter	☐ Temperature/Cure	☐ Set-up	☐ BOM/Route	☐ Broken/Damage/Defect	☐ Inspection Incomplete/Unqualified	☐ Contamination	☐ Countersink	☐ Cut Too Short	☐ Instructions Incomplete/Unclear	☐ Drill Holes	☐ Power Loss/Surge	☐ Folio/Program	☐ Grain	☐ Weld	☐ Wrong Stock Pulled	☐ Out of Sequence	☐ Off-set	☐ Mislabeled	☐ Fit/Function	☐ Misaligned/off center	☐ Positioned Wrong	☐ Outside Dimensions	☐ Over/Under tolerance	☐ Part Incorrect	☐ Part Lost/Missing	☐ Part Moved	☐ Drawing	☐ Finish	☐ Misread	☐ Turning Sequence
																								OTHER : _____																																							

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Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-2

Purchased No

110 Each

104.0000

5 5

CR3212-4-2

Cherry Rivet

**

MAY 17 2017

DAS 6 28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK003

100

m137164

100

ST320

4

m136321

471

CR3212-4-3

Purchased No

110 Each

266.0000

17 17

CR3212-4-3

Cherry Rivet

**

MAY 17 2017

DAS 6 28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK003

200

m136741

200

ST320

66

m135408

66

CR3212-4-4

CR3212-4-04

Purchased No

110 Each

0.0000

7 7

CR3212-4-4

CHERRY RIVET

CCR264SS3-04

Purchased No

110 Each

110.0000

12 12

CCR264SS3-04

Rivet

**

MAY 17 2017

DAS 6 28
9-89

DAS 6 28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST321

110

123785

110

129702

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date: _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Wednesday, April 05, 2017 10:56:24 AM

Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

CCR264SS-3-03

Purchased

No

110

Each

239.0000

16

16

CCR264SS-3-03

Cherry Rivet

DAS
27
9-89

Location

Loc Qty

Loc Code

LG001

13

m134023

13

ST321

226

m137164

226

110

Each

150.0000

31

31

CR3213-4-2

Purchased

No

CR3213-4-2

Cherry Rivet

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK003

100

m136986

100

ST320

50

m135704

2

m135979

48

110

Each

392.0000

24

24

CR3213-4-3

Purchased

No

CR3213-4-3

Rivet, Cherry

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK003

300

m136851

300

GA

92

m136042

92

110

Each

234.0000

16

16

CR3213-4-4

Purchased

No

CR3213-4-4

Rivet, Cherry

DAS
27
9-89

Location

Loc Qty

Loc Code

ST319

234

m136301

234

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Shop Packet Print

Page 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Wednesday, April 05, 2017 10:56:24 AM

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Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

CR3213-4-5
Rivet
CR3213-4-5

110 Each 3.0000 28 28
**

DAS 6 9-89
MAY 17 2017
DAS 28 9-89

CR3213-4-8
Rivet
CR3213-4-8

Location Loc Qty Loc Code
ST319 3
M129913 3
110 Each 99.0000 4 4
**

13736
DAS 6 9-89
MAY 17 2017
DAS 28 9-89

MS21042-3 MS21042L3
Nut
MS21042-3

Location Loc Qty Loc Code
ST319 99
m136983 99
110 Each 0.0000 79 79
**

137321
DAS 6 9-89
MAY 17 2017
DAS 28 9-89

MS21042-08 MS21042L08
Nut
MS21042-08

Location Loc Qty Loc Code
ST319 18
110 Each 0.0000 18 18
**

137391
DAS 6 9-89
MAY 17 2017
DAS 28 9-89

USE MS21042L08
MS21047L06
Nut Plate
MS21047L 06

Location Loc Qty Loc Code
ST301 51
m135671 1
m137166 50
110 Each 51.0000 6 6
**

DAS 6 9-89
MAY 17 2017
DAS 28 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Wednesday, April 05, 2017 10:56:24 AM

Work Order ID: 159019

159019

Parent Item: 647.3704

647.3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

MS21047L08

Purchased No

110 Each

20.0000

6 6

MS21047L08

Nut Plate

**

DAS
6
9-89

DAS
28
9-89

MAY 17 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST301

20

m135566

2

m136406

18

MS21047-3

Purchased No

110 Each

216.0000

4 4

MS21047-3

Nut Plate

**

DAS
6
9-89

DAS
28
9-89

MAY 17 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST301

216

m136442

3

m136781

13

m136986

100

m137075

100

MS21071L3

Purchased No

110 Each

51.0000

4 4

MS21071L3

ANCHOR NUT

**

DAS
6
9-89

DAS
28
9-89

MAY 17 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST299

51

125654

51

601.3083

Manufactured No

110 Each

2.0000

1 1

601.3083

Adhesive Rubber Seal

**

DAS
6
9-89

DAS
28
9-89

MAY 17 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck009

2

157165

2

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Shop Packet Print

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DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Wednesday, April 05, 2017 10:56:24 AM

Page 13

Work Order ID: 159019

159019

Parent Item: 647.3704

647 3704

Parent Item Name: 204,205,212,214 Cable Cutter System, High

Start Date: 4/12/2017

Required Date: 4/26/2017

Start Qty: 1.00

Required Qty: 1.00

600.1012 Purchased No

110 Each 15.0000 1 1

600 1012

Sealant PR1425B2 (#654 sem)

**

DAS 6 9-89 MAY 17 2017 DAS 28 0 30

DAS 27 9-89

W.P. 11/2017

Location

Loc Qty

Loc Code

ckk017

15

m136838

8

m1370073

7

601.2045 Purchased No

110 Each 12.0000 1 1

601 2045

RTV (LOCTITE 598) McMaster p/n: 6641A41

**

DAS 6 9-89 MAY 17 2017 DAS 28 0 30

DAS 27 9-89

W.P. 10/2018

Location

Loc Qty

Loc Code

CCK096

4

m136902

4

GA

8

m134260

8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

04881

SHEET 1 OF 1

DWG NO. 647.3700

REV: N/C

PREPARED BY J. BECKER

DATE: 02/26/15

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: 412 CABLE CUTTERS KIT

APPROVED BY: ENGR *[Signature]*

MFG *[Signature]*

QC

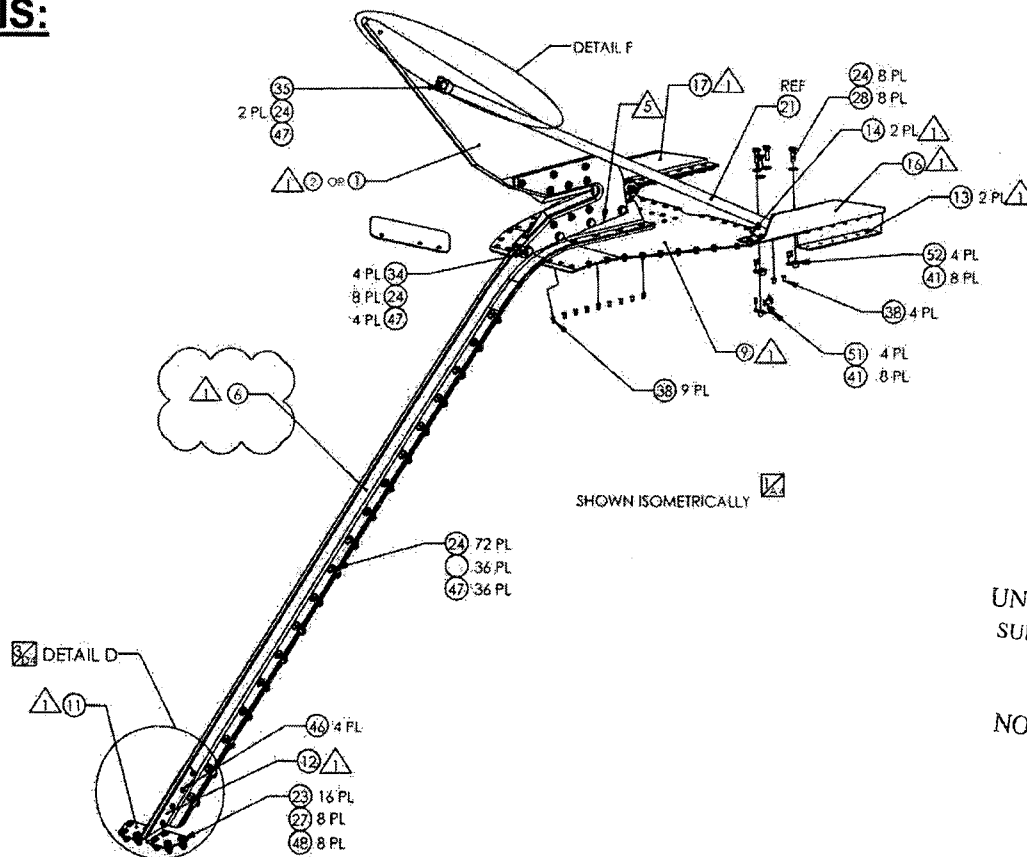
EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: DELETED F/N 57, REVISED F/N 6.

ECR: N/A

SHEET 1, ZONE C5 IS:



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 159019 MW
170405

57	D	647.3916	1	1	1	1	DEFLECTOR UPPER HALF				
6	R	647.3903	1	1	1	1	DEFLECTOR ASSEMBLY				
F/N	TC	PART NUMBER	3704	3703	3702	3701	DESCRIPTION			MATERIAL	SPECIFICATION
			QTY								
DOCUMENTS EFFECTED:							CHANGE CATEGORY			DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM							☐ MAJOR ☒ MINOR			☐ YES ☒ NO	



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

04845

SHEET 1 OF 1

DWG NO. 647.3700

REV: N/C PREPARED BY J. BECKER

DATE: 02/11/15

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: 412 CABLE CUTTERS KIT

APPROVED BY: ENGR

MFG

QC

EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

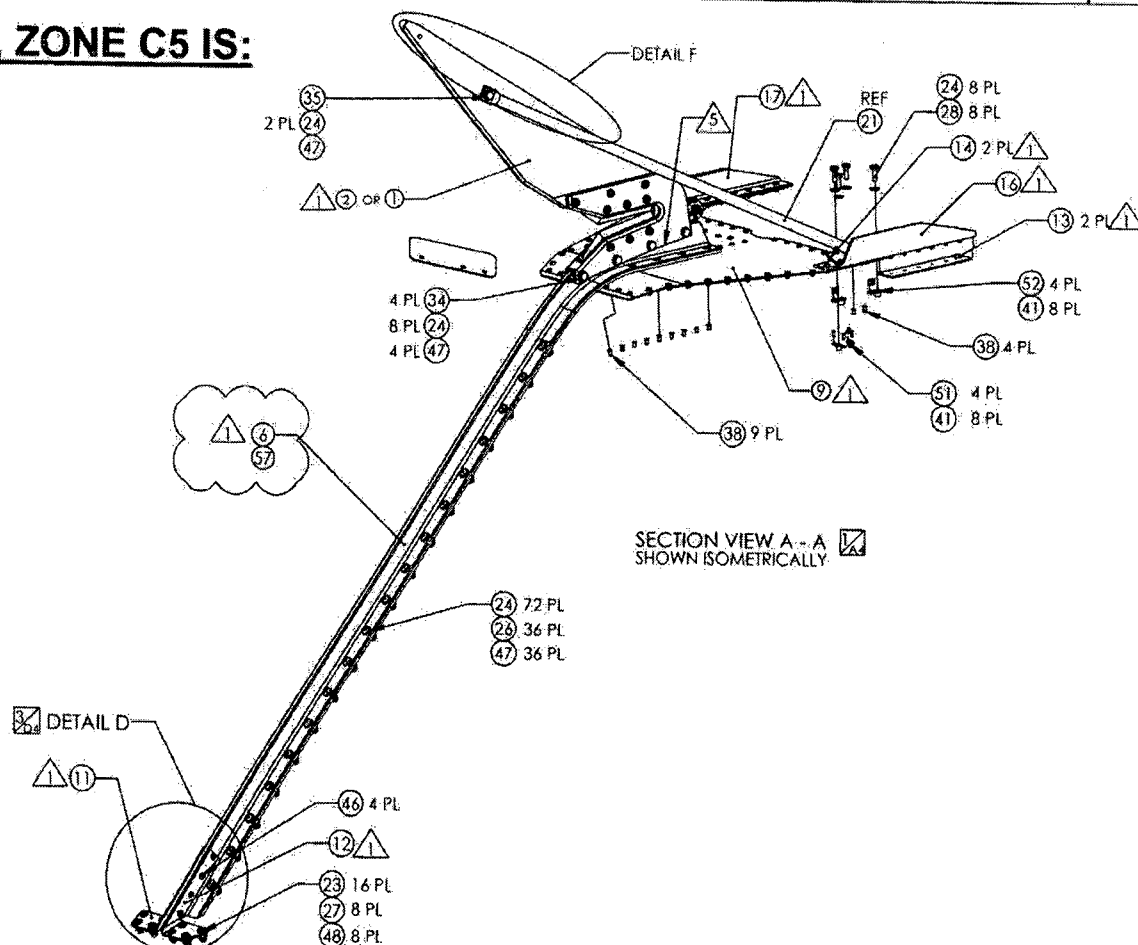
REASON: ADDED F/N 57

ECR:

ACTION ITEM:

1.

SHEET 1, ZONE C5 IS:



57	A	647.3916	1	1	1	1	DEFLECTOR UPPER HALF					
F/N	TC	PART NUMBER	3704	3703	3702	3701	DESCRIPTION				MATERIAL	SPECIFICATION
			QTY									
DOCUMENTS EFFECTED:							CHANGE CATEGORY				DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM							☐ MAJOR ☒ MINOR				☐ YES ☒ NO	

INDUSTRIES, INC.

DWG NO. 647.3700

REV: NC

PREPARED
BY

R. ROSANO

DATE: 12/23/09

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: 412 CABLE CUTTERS KIT

APPROVED BY:

ENGR

KMF 3

QC

EFF:

~~LEAD~~
NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: ADDED MODEL 214 TO APPROPRIATE DESCRIPTIONS

SHEET 1, ZONE D7 IS:

IS

		X				647.3704	204, 205, 212, 214 CABLE CUTTERS KIT HIGH		
			X			647.3703	204, 205, 212, 214 CABLE CUTTERS KIT LOW		
				X		647.3702	412 CABLE CUTTERS KIT HIGH		
					X	647.3701	412 CABLE CUTTERS KIT LOW		
		.3704	.3703	.3702	.3701	FIND PART #	DESCRIPTION	MAT'L	SPEC.

F/N	TC	PART NUMBER	2901
			QTY

STY

DESCRIPTION

MATERIAL

SPECIFICATION

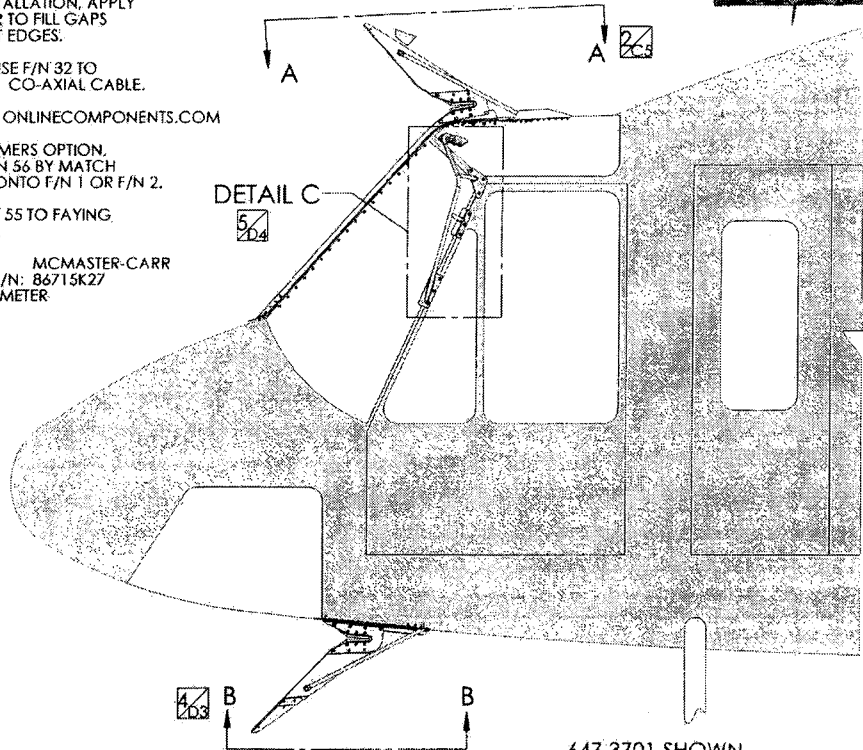
DOCUMENTS EFFECTED:

☒ MDL ☒ INSTALL INSTRU ☒ ICA ☒ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☒ YES ☐ NO

- 1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.
- 2 IF REQD. USE F/N 32 TO CONNECT CO-AXIAL CABLE.
- 3 VENDOR : ONLINECOMPONENTS.COM
- 4 AT CUSTOMERS OPTION, INSTALL F/N 56 BY MATCH DRILLING ONTO F/N 1 OR F/N 2.
- 5 APPLY F/N 55 TO FAYING SURFACES.
- 6 VENDOR : MCMMASTER-CARR
VENDOR P/N: 86715K27
60A DUROMETER



647.3701 SHOWN

[illegible]

UNINCORPORATED ECN(S)

01728, 04845, 04881

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	LAST PROTOTYPE REVISION: P#1		N/C
H/C	INITIAL RELEASE	09/29/07	P. BRAVO

	16	16	16	16	41	601.2207	NUTPLATE RIVET		COR264SS-3-04	
	12	12	12	12	40	601.2491	NUTPLATE RIVET		CCR264SS-3-04	
	7	7	4	4	39	601.1066	CHERRY RIVET		CR3212-4-6	
	17	17	17	17	38	601.1065	CHERRY RIVET		CR3212-4-3	
	5	5	6	6	37	601.1604	CHERRY RIVET		CR3212-4-2	
	6	6	6	6	36	601.3082	CHERRY RIVET		CR3212-4-1	
	2	2	2	2	35	601.1874	BOLT		ANB3IDA	
	8	8	8	8	34	601.2826	BOLT		ANB-11A	
	3	3	3	3	33	601.2823	BOLT		ANB-4A	
	1	1	1	1	32	601.3073	CONNECTOR		052-4440	
	8	8	8	8	31	601.2419	SCREW		M32469AC53	
	1	1	1	1	30	601.3070	SCREW		M32469AS6P	
	2	2	2	2	29	601.2893	SCREW		M32703S-0611	
	14	14	14	14	28	601.3069	SCREW		M32703P-1-09	
	16	16	16	16	27	601.2263	SCREW		M32703P-0808	
	42	42	42	42	26	601.1365	SCREW		M32703P-1-10	
	12	12	12	12	25	601.2198	SCREW		M32703P-1-07	
	157	157	157	157	24	601.1607	WASHER		NA51149F0302P	
	34	34	34	34	23	601.2764	WASHER		NA51149H1830P	
	1	1	1	1	22	647.4313	RH UPPER STRUT			
	1	1	1	1	21	647.4312	LH UPPER STRUT			
	1	1	1	1	20	647.4310	LH LOWER STRUT			
	1	1	1	1	19	647.4311	RH LOWER STRUT			
	1	1			18	647.4212	PLATE			
	1	1	1	1	17	647.4211	BRACKET RH			
	1	1	1	1	16	647.4210	BRACKET LH			
	1	1	1	1	15	647.4116	SHIM			
	2	2	2	2	14	647.4115	SHIM			
	2	2	2	2	13	647.4114	SHIM			
	1	1	1	1	12	647.4113	CLIP			
	1	1	1	1	11	647.4112	CLIP			
	1	1	1	1	10	647.4111	DOUBLER			
	1	1	1	1	9	647.4110	DOUBLER			
	1	1	1	1	8	647.4011	WIFER DEFLECTOR LH			
	1	1	1	1	7	647.4010	WIPER DEFLECTOR RH			
	1	1	1	1	6	647.3915	DEFLECTOR			
	1	1	1	1	5	647.4410	RAIL			
	1	1	1		4	647.3804	LOWER CUTTER ASSY HIGH			
	1	1		1	3	647.3803	LOWER CUTTER ASSY LOW			
	1	1			2	647.3802	212 UPPER CUTTER ASSY			
			1	1	1	647.3801	412 UPPER CUTTER ASSY			
	X	X	X	X		647.3704	204, 205, 212 CABLE CUTTERS KIT HIGH			
	X	X	X	X		647.3703	204, 205, 212 CABLE CUTTERS KIT LOW			
	X	X	X	X		647.3702	412 CABLE CUTTERS KIT HIGH			
	X	X	X	X		647.3701	412 CABLE CUTTERS KIT LOW			
	3764	3703	3702	3701	FIND	PART #	DESCRIPTION		MATL	SPEC.

QTY		PARTS LIST
NEXT ASSY (\$)	ORIGINAL DATE 11-02-91 04-29-91 DRAWN BY J. JACKSON CHECKED D. BAIGER DRAWING APPROVAL P. ORRICO (06-29-91) CONTRACT NO.	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300 412 CABLE CUTTERS KIT
	UNITS OF THIS SPECIES: QUANTITY AND DIMENSIONS TOLERANCE AND FINISH SPECIAL REQUIREMENTS PRICE DEGRADATION TESTS	QTY CASE CODES UNIT NO. REV. E DMWZ 647.3700 N/C QTY ALF. NAME COMMENTS QTY OF S.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

SECTION VIEW A - A
SHOWN ISOMETRICALLY

DETAIL D

DETAIL F

TYPICAL GPS MOUNT KIT INSTALLATION

3/04

1 11

46 4 PL

12 1

23 16 PL

27 8 PL

48 8 PL

24 72 PL

26 36 PL

47 36 PL

1 6

4 PL 34

8 PL 24

4 PL 47

1 2 OR 1

35

2 PL 24

47

5

17 1

21 REF

24 8 PL

28 8 PL

14 2 PL 1

16 1

13 2 PL 1

52 4 PL

41 8 PL

38 4 PL

51 4 PL

41 8 PL

9 1

38 9 PL

56 REF 4 1

REF 1 OR 2

QUOTE/DATE 1/20/04 JBT		DIRECTOR J. JACKSON	
DRAWN BY J. JACKSON		ELBARTER	
CHECKED BY P. BROWN		APPROVED BY P. BROWN	
CONTRACT NO.		PART NO.	
QUOTE/DATE 1/20/04 JBT		DIRECTOR J. JACKSON	
DRAWN BY J. JACKSON		ELBARTER	
CHECKED BY P. BROWN		APPROVED BY P. BROWN	
CONTRACT NO.		PART NO.	

APICAL INDUSTRIES
 2608 TEMPLE HEIGHTS DR.
 OCEANSIDE, CA. 92056-3512 (760) 724-5300

412 CABLE-CUTTERS KIT

QTY CAGE CODE TAG. NO. REV.
 B 07M16 647.3700 N/C

SCALE: NONE SHEET 2 OF 5

GENERAL NOTE JUN 04-1981	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR OCEANSIDE, CA 92056-3512 (760) 724-5300 412 CABLE CUTTERS KIT														
DRAWINGS BY JACKSON D. BARNER	<table border="1"> <tr> <td>REV.</td> <td>CAGE CODE</td> <td>PRG. NO.</td> <td>REV.</td> </tr> <tr> <td>0</td> <td>07M36</td> <td>647.3700</td> <td>N/C</td> </tr> <tr> <td colspan="3">SCALE: NONE</td> <td>SHEET 2 OF 5</td> </tr> </table>			REV.	CAGE CODE	PRG. NO.	REV.	0	07M36	647.3700	N/C	SCALE: NONE			SHEET 2 OF 5
REV.	CAGE CODE	PRG. NO.	REV.												
0	07M36	647.3700	N/C												
SCALE: NONE			SHEET 2 OF 5												
DRAWING: ORIGINAL P: 3/10/00															
CONTRACT NO.															
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS (FEET) FRACTIONS DECIMALS (FEET) FRACTIONS DECIMALS (FEET)															

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

1 2 3 4 5 6 7 8

REF 9

24 PL 43

38 2 PL

14 PL 45

17 REF

22

37

17 PL 44

4 PL 39

21

8 PL 31

8 PL 24

8 PL 47

16 REF

647.3701 & 647.3702
UPPER CUTTER ASSEMBLY
TOP VIEW

REF 9

18 PL 42

38 2 PL

14 PL 44

17 REF

22

16 PL 43

4 PL 39

21

8 PL 31

8 PL 24

8 PL 47

16 REF

647.3703 & 647.3704
UPPER CUTTER ASSEMBLY
TOP VIEW

REF 11

38 2 PL

6 REF

4 PL 37

REF 12

DETAIL D
TOP VIEW
BROKEN OUT FOR CLARITY

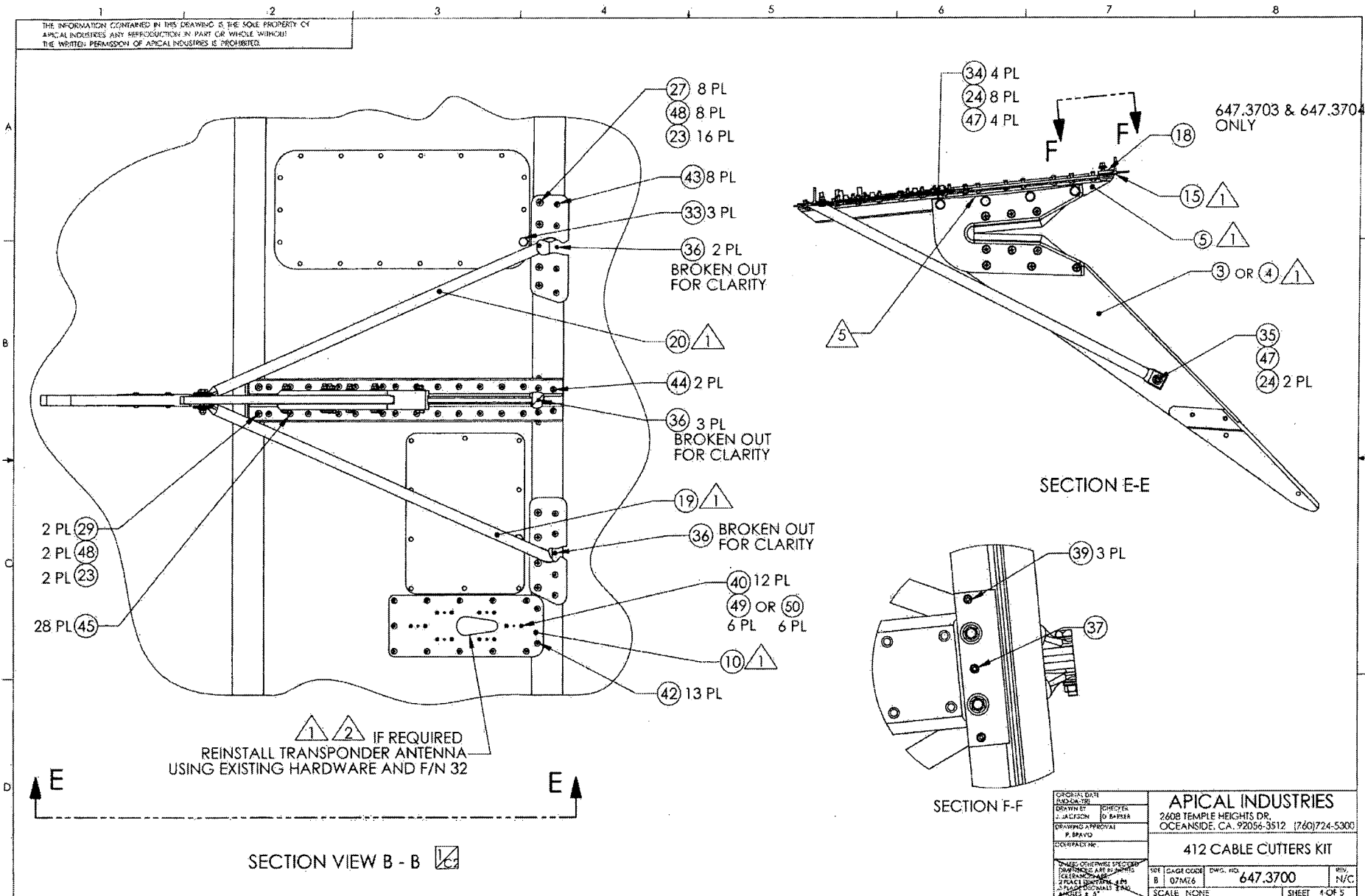
CONTRACT DATE		CAGE CODE		DWG. NO.		REV.	
DRAWN BY J. JACKSON		CHECKED BY D. BAILEY		B		07/26	
DRAWING APPROVAL P. BRAYO		CONTRACT NO.		SCALE		NONE	
UNLESS OTHERWISE SPECIFIED DRAWING IS IN INCHES TOLERANCES FRACTIONS DECIMALS ANGLES FRACTIONS DECIMALS		APICAL INDUSTRIES		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		N/C	
412 CABLE CUTTERS KIT				647.3700		3 OF 5	

647.3703 & 647.3704
UPPER CUTTER ASSEMBLY
TOP VIEW

DETAIL D 
TOP VIEW
BROKEN OUT FOR CLARITY

PROJECT DATE (MM/DD/YY) 01/01/01 DRAWN BY J. JACKSON CHECKED BY D. BARKER DRAWING APPROVAL P. BRAYD CONTRACT NO.	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300 412 CABLE CUTTERS KIT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1. FRACTIONAL DIMENSIONS ±.005 2. DECIMAL DIMENSIONS ±.001 3. HOLE DIMENSIONS ±.002	REV. DATE BY DESCRIPTION R 07/21/02 647.3700 SCALE NONE SHEET 3 OF 5

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THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

BROKEN OUT FOR CLARITY
RH SIDE ONLY

△ LH ⑧
OR
△ RH ⑦

DETAIL C 
LH SHOWN, RH OPPOSITE
2 PL

②⑧ 3 PL
②④ 6 PL
④⑦ 3 PL

⑤③ TRIM TO FIT

②⑥ 3 PL
②④ 6 PL
④⑦ 3 PL

②⑤ 6 PL
②④ 12 PL
④⑦ 6 PL

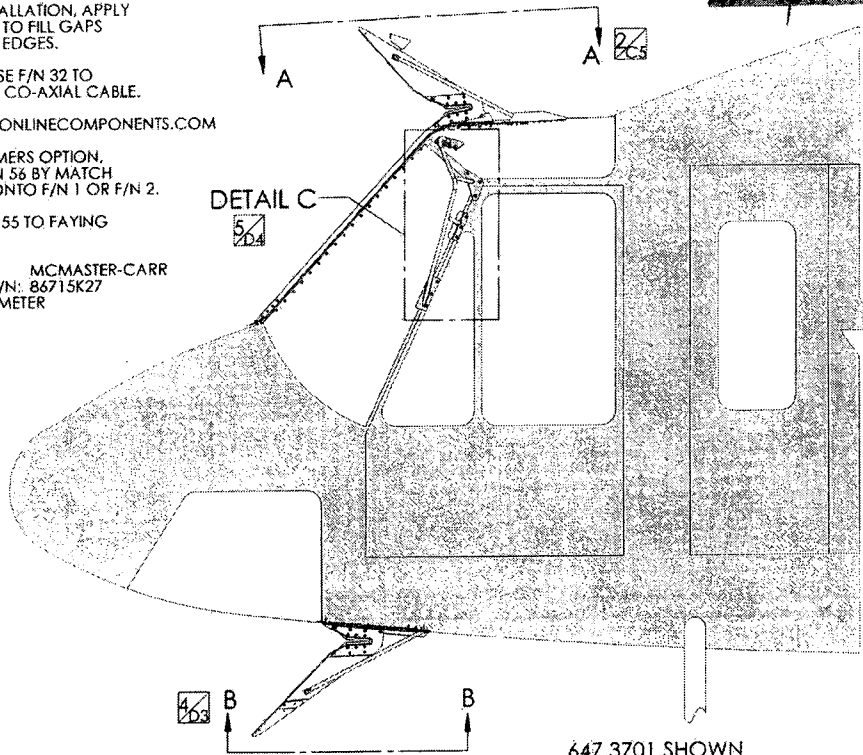
DESIGNER DATE APICAL INDUSTRIES		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DESIGNED BY J. APICAL	CHECKED BY D. BARBER	412 CABLE CUTTERS KIT	
DRAWING APPROVAL P. REANO		SHEET 8	DATE 07/12/16
QUANTITY 1		SCALE NONE	SHEET 5 OF 5
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS ARE 1/16" OR 1/8" UNLESS NOTED OTHERWISE		REV. 1	REV. N/C

REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

NOTES:

- 1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.
- 2 IF REQD. USE F/N 32 TO CONNECT CO-AXIAL CABLE.
- 3 VENDOR : ONLINECOMPONENTS.COM
- 4 AT CUSTOMERS OPTION, INSTALL F/N 56 BY MATCH DRILLING ONTO F/N 1 OR F/N 2.
- 5 APPLY F/N 55 TO FAYING SURFACES.
- 6 VENDOR : MCMMASTER-CARR
VENDOR P/N: 86715K27
60A DIUMETER



647.3701 SHOWN

REF.	REF.	REF.	REF.	56	647.5701	GPS MOUNT KIT			
A/R	A/R	A/R	A/R	55	601.2045	RTV		LOCITE 98	
A/R	A/R	A/R	A/R	54	601.1012	SEALANT		PELOR CLASS	
=1	1	1	1	53	601.3083	ADHESIVE RUBBER SEAL		MB-B-3045	
=4	4	4	4	52	601.2957	NUTPLATE		MS2104713	
=4	4	4	4	51	600.0795	NUTPLATE		MS210473	
6	6	6	6	50	601.3066	NUTPLATE		MS22104700	
6	6	6	6	49	601.3065	NUTPLATE		MS2104700	
18	18	18	18	48	601.2973	LOCKNUT		MS2104298	
79	79	79	79	47	601.2943	LOCKNUT		MS210423	
4	4	4	4	46	601.2364	CHEERY RIVET		CR2213-4-6	
28	28	42	42	45	601.1183	CHEERY RIVET		CR2213-4-5	
16	16	19	19	44	601.1915	CHEERY RIVET		CR2213-4-4	
24	24	32	32	43	601.0790	CHEERY RIVET		CR2213-4-3	
31	31	13	13	42	601.1039	CHEERY RIVET		CR2213-4-2	
3704	3703	3702	3701	FIN	PART #	DESCRIPTION		MATL	SPEC.

UNINCORPORATED ECN(S)

01728 04845, 04881

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	LAST PROTOTYPE REVISION (P1)		NYC
NPC	INITIAL RELEASE	09-29-99	P. BRAVO

	-16	-15	-16	-16	-41	601.2207	NUTPLATE RIVET	"CR22WSS-903
	12	12	12	12	40	601.2491	NUTPLATE RIVET	COP2645S-J04
	27	27	4	4	39	601.0166	CHERRY RIVET*	CR22JC-4
	17	17	17	17	38	601.0455	CHERRY RIVET	CR22J2-4-3
	5	5	6	6	37	601.1604	CHERRY RIVET	CR22J2-4-2
	6	6	6	6	36	601.3082	CHERRY RIVET	CR22J2-4-1
	2	2	2	2	35	601.1874	BOLT	AN2C10P AN2-11A
	8	8	8	8	34	601.2826	BOLT	AN2-11A
	3	3	3	3	33	601.2823	BOLT	A18-45L
	1	1	1	1	32	601.0373	CONNECTOR	DG2-440
	8	8	8	8	31	601.2419	SCREW	MS24594-C53
	1	1	1	1	30	601.3070	SCREW	MS24594-C59
	2	2	2	2	29	601.2893	SCREW	MS2703P-0611
	14	14	14	14	28	601.3069	SCREW	MS2703P-I-05
	16	16	16	16	27	601.2263	SCREW	MS2703P-0808
	42	42	42	42	26	601.1365	SCREW	MS2703P-I-10
	12	12	12	12	25	601.2198	SCREW	MS2703P-I-07
	157	157	157	157	24	601.1607	WASHER	NAS1149H033GP
	34	34	34	34	23	601.2764	WASHER	NAS1149H822P
	1	1	1	1	22	647.4313	RH UPPER STRUT	
	1	1	1	1	21	647.4312	LH UPPER STRUT	
	1	1	1	1	20	647.4310	LH LOWER STRUT	
	1	1	1	1	19	647.4311	RH LOWER STRUT	
	1	1	1	1	18	647.4212	PLATE	
	1	1	1	1	17	647.4211	BACKET RH	
	1	1	1	1	16	647.4210	BACKET LH	
	1	1	1	1	15	647.4116	SHIM	
	2	2	2	2	14	647.4115	SHIM	
	2	2	2	2	13	647.4114	SHIM	
	1	1	1	1	12	647.4113	CUP	
	1	1	1	1	11	647.4112	CUP	
	1	1	1	1	10	647.4111	DOUBLER	
	1	1	1	1	9	647.4110	DOUBLER	
	1	1	1	1	8	647.4011	WIPER DEFLECTOR LH	
	1	1	1	1	7	647.4010	WIPER DEFLECTOR RH	
	1	1	1	1	6	647.3915	DEFLECTOR	
	1	1	1	1	5	647.4410	RAIL	
	1	1	1	1	4	647.3804	LOWER CUTTER ASSY HIGH	
	1	1	1	1	3	647.3803	LOWER CUTTER ASSY LOW	
	1	1	1	1	2	647.3802	212 UPPER CUTTER ASSY	
	1	1	1	1	1	647.3801	412 UPPER CUTTER ASSY	
						647.3704	204, 205, 212 CABLE CUTTERS KIT HIGH	
						647.3703	204, 205, 212 CABLE CUTTERS KIT LOW	
						647.3702	412 CABLE CUTTERS KIT HIGH	
						647.3701	412 CABLE CUTTERS KIT LOW	
3704	3703	3702	3701	FIND	PART #	DESCRIPTION	MATL	SPEC.

QTY		PARTS LIST	
NEXT ASSY [S]		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92036-3512 (760)724-5300 412 CABLE CUTTERS KIT	
CORP/INST DATES: JAC 03A-178 09-29-00 DRAWN BY: J. JACKSON CHECKED BY: D. BARBER TYPED BY: J. JACKSON DATE: 09-29-00 CONTRACT NO.		REV. DATE CODE DRWG. NO. REV. B 07/21/06 647-3700 NIC SCALE NONE SHEET 1 OF 5	
JAMES CABLES AND SPECIALS 10000 S. 10TH AVE. SUITE 201 DENVER, CO 80231 (303) 751-1100 FAX (303) 751-1101 JAMES@JCS.COM WWW.JCS.COM			

Work Order ID 159019

Wednesday, April 05, 2017 10:56:25 AM

159019

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Item ID: 647.3704 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: 204,205,212,214 Cable Cutter System, High
Start Date: 4/12/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 4/26/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference: SCHEDULED

Approvals: Process Plan: _____ Date: APR 05 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
647.3700	NC3								

100 DOCUMENT CONTROL 0.00 APR 18 2017 CB
100
DC Memo 0.00
Doc.Control -USB or Paperwork Photocopy bluefile & type labels per PPP 647.3704

110 Pick Kit 0.00
110
Packaging Memo 0.00
Packaging

120 QC4- 100% Inspect kits for completeness 0.00
120
QC Memo 0.03
Quality Control